June 18, 1997

Mr. David B. Howekamp
Director of Air Management Division
United States Environmental Protection Agency
75 Hawthorne Street
San Francisco, CA 94105

Dear Mr. Howekamp:

The District has completed revisions to the following proposed Major Facility Review Permits, in response to U. S. EPA Region IX's objections in a letter dated January 31, 1997, subsequent comment letters dated May 30, 1997 and June 6, 1997, and a discussion via teleconference between the District and Region IX on June 17, 1997:

BAAQMD #	Plant Name	City
A0023	General Chemical	Richmond
A0083	U.S. Pipe & Foundry	Union City
A0575	Acme Fiberglass	Hayward
A0591	East Bay M.U.D.	Oakland
A0733	City of Sunnyvale	Sunnyvale
A1209	Union Sanitary	Union City
A1403	City of Santa Rosa	Santa Rosa
A2300	Fleischmanns Yeast	Oakland
A3523	Universal Foods	Oakland
A7974	Western Fiberglass	Santa Rosa

Enclosed for your review are:

Enclosure #1: The text and citations of additional changes for the proposed permits as they were forwarded to your office on April 30, 1997;

Enclosure #2: A discussion of the District's implementation of monitoring policy for insignificant emission units set forth in "White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program;" and

Enclosure #3: A review of the District's policy for monitoring at publicly owned treatment works.

Title V, as a program, has resulted in a better understanding, by all stakeholders, of the rights and obligations of major sources. Region IX has suggested, and the District has imposed, many new conditions that make requirements explicitly clear and enhance compliance. The District has used its authority, under Part 70 as interpreted in the White Papers, to decline a few Region IX suggestions that, in our opinion, will not enhance compliance. We trust that Region IX will acknowledge this authority and approve these permits, as modified by our transmittal with this letter.

The District believes the revisions proposed herein adequately address all legitimate periodic monitoring concerns expressed by EPA. We intend to issue the permits as proposed, barring any further EPA action on these permits by July 1, 1997.

If you have any questions regarding this project, please call Janet Stromberg, Principal Air Quality Engineer, at (415) 749-4716.

Very truly yours,

Ellen Garvey
Air Pollution Control Officer

Enclosures (3)

cc: California Air Resources Board (w/all enclosures)
Each Facility (w/general and facility specific enclosures)

Enclosure #1

Revisions to the April 30, 1997, Versions of

Ten Proposed BAAQMD Major Facility Review Permits

A0023 GENERAL CHEMICAL

I. The following corrections were requested by the plant

A. General Chemical has discontinued oleum processing. Therefore, the oleum storage tanks which are assigned source numbers S-2, S-5 and S-11 and the truck loading/unloading station which is assigned source number S-20 have been converted to sulfuric acid service and will no longer handle oleum. The wet scrubber which has been used to abate oleum emissions and which is assigned source number A-3 will no longer be used. These changes affects the following parts of the permit: Table II-A (source description change), Table II.B (delete A-3 entries), Table IV-B (delete), Table IV-C (add S-2, S-5, S-11), Table IV-K (source description change, delete Regulation 12-10 applicability, delete Permit Condition 12053 entries), Section VI (delete Permit Condition 12053), Table VIII-B (delete), Table VIII-C (add S-2, S-5, S-11, S-20).

B. General Chemical has notified the District of an error in its application in the description of abatement devices A-1 and A-2. The correct relationship is that S-1 and S-24 are abated by the A-2 mist eliminator, and then by the A-1 dual absorption process which itself incorporates a final mist eliminator stage. Table II-B has been revised to show this relationship.

II. The following error was noticed by the District and corrected

The capacity for Source 15, Start-up Air Heater, is 16.55 mmbtu/hr.

III. Periodic monitoring issues

A. General Chemical has decided that annual source testing would be preferable for ensuring compliance with the acid mist and SO3 standard, rather than developing parameter monitoring. Therefore, the facility accepts the following annual source test requirement.

Condition 14980:

Source S-1, Sulfuric Acid Manufacturing Process 1. In order to demonstrate compliance with BAAQMD Regulation 6-320, Sulfuric Acid Manufacturing Plants, the owner/operator shall perform an annual source test at the exhaust from the A-1, Sulfur Dioxide Abatement Unit. The owner/operator shall obtain approval for all test procedures from the District's Source Test Section at least 7 days before conducting any tests. The results of this annual source test shall be submitted to the District within 30 days of conducting the test. The source test data and the summarized results shall be kept on site for at least five years after the test date. (basis: BAAQMD Regulation 2-6-409.2, 2-6-501)

A citation for the new condition will be added to the Source-Specific Applicable Requirements table for the source.

Table VIII-A will be changed to show the additional monitoring requirement:

Table VIII-A

S-1 Sulfuric Acid Manufacturing Process

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO3 and H2SO4	BAAQMD 6-320	Y		0.04 grain/dscf	BAAQMD cond #14980, part 1	P/A	Source test

B. Gas Station monitoring for Regulation 8-7-301.2:
The gas station at this facility is very small. In fact, the gas station has only one nozzle. The potential to emit at General Chemical is 660 lb POC/yr. The PTE is based on the throughput limit of 60,000 gal/yr. The PTE for the gas station does not warrant additional monitoring.

C. Source 15, Start-up Heater:

Condition 7606 does impose concentration limits for NOX and CO on Source 15. However, it also imposes a throughput limit of 5 million cubic feet of natural gas. Using general emission factors, the PTEs for NOX and CO at this throughput limit are 700 and 175 lb/yr, respectively. This means that the heater can operate only 302 hrs/yr. Considering that the gas throughput is monitored, additional monitoring is not warranted.

Condition 12051, Part 2:

It is unclear to the District why Region IX apparently believes the operational requirement of this condition needs to be monitored.

IV. Other changes

A. The equipment list heading will be changed from I to II.

B. Sources 30 and 31 are Sulfuric Acid tanks #4 and #7. The error will be corrected in Table IV-C.

C. Regulation 6 will be deleted as a Source-specific Applicable Requirement for the following sources because they are insignificant emission units (IEUs) for particulate:

S-2, Sulfuric Acid Storage Tank #10
S-5, Sulfuric Acid Storage Tank #9
S-11, Sulfuric Acid Storage Tank #5
S-3 Alkylation Acid Storage Tank #12S-6 Sulfur Storage Tank
S-7 Sulfur Melting Pit
S-8 New Sulfur Melting Pit
S-9 Process Air Heater
S-10 Alkylation Acid Storage Tank #10
S-13 Alkylation Acid Storage Tank #16
S-15 Startup Air Heater
S-16 Alkylation Acid Storage Tank #13
S-17 Railcar Loading/Unloading Station (Sulfuric/Alkylation Acid)

S-18 Truck Unloading Station (Alkylation Acid)
S-20 West Truck Loading/Unloading Station (Oleum)
S-22 Sulfur Unloading Station
S-28 Sulfuric Acid Storage Tank #1
S-29 Sulfuric Acid Storage Tank #2
S-30 Sulfuric Acid Storage Tank #4
S-31 Sulfuric Acid Storage Tank #7
S-32 Alkylation Acid/Sulfuric Acid Tank

A0083 U. S. PIPE AND FOUNDRY

I. The following correction was mentioned in the District's transmittal letter of April 30, 1997, but not changed in the permit

The applicable SO2 requirement for S-1, Cupola, has been changed from 9-1-304 to 9-1-302.

II. Periodic monitoring issues

A. U.S. Pipe and Foundry has agreed to make monitoring changes to address EPA comments. In particular, they have agreed to perform a source test for sulfur dioxide if the sulfur content of the coke used ever exceeds 0.75 percent. In addition, they have agreed to perform visible emissions monitoring at sources 1, 4, 5, 8, 15, and 16. They have also agreed to a maintenance condition on source 32.

B. Following are the additions to the permit conditions:

Condition ID # 2274, for S-1 Cupola

7. The sulfur content of the coke used at S-1, Cupola, shall not exceed 1.0 percent as a surrogate means for ensuring compliance with BAAQMD Regulation 9-1-304. The owner/operator will obtain a certification of the sulfur content of the coke for each delivery to assure compliance with this condition. The fuel certification records shall be retained on site for a minimum of five years from the date of entry and be made available to District representatives upon request. In the event the coke sulfur content exceeds 0.75 percent, the owner/operator shall arrange for a one time source test of S-1 at the time said coke is used to demonstrate that higher level of coke sulfur content will not produce gas stream emissions at A-12 baghouse that will exceed the limit established in BAAQMD Regulation 9-1-304.

   If the sulfur dioxide emissions do not exceed the limit, the owner/operator shall be allowed to use coke with a sulfur content at or below the sulfur content of the coke used for the source test. In the event the coke sulfur content exceeds the new limit for coke sulfur content established in the source test, the owner/operator shall again arrange for a one time source test of S-1 at the time said coke is used to demonstrate that higher level of coke sulfur content will not produce gas stream emissions at A-12 baghouse that will exceed the limit established in BAAQMD Regulation 9-1-304.

   The owner/operator shall notify the Source Test Group at the BAAQMD at least three days before any source test is performed. (basis: BAAQMD regulation 9-1-304, BAAQMD Regulation 2-6-501)

8. The owner/operator of S-1 shall maintain daily records of preventive maintenance inspections of A-12 baghouse. The preventive maintenance inspection reports shall be retained on site for a minimum of five years from the date of entry and be made available to District representatives upon request. (basis: BAAQMD regulation 6-301, BAAQMD Regulation 2-6-501)

9. The owner/operator of S-1 shall maintain weekly records of qualitative visible emissions data of A-12 baghouse using EPA Method 22 . The records of visible emissions data shall be retained on site for a minimum of five years from the date of entry and be made available to District representatives upon request. (basis: BAAQMD regulation 6-301, BAAQMD Regulation 2-6-501)

Condition ID # 1783, for S-4 Ductile Treating

6. The owner/operator of S-4 shall maintain weekly records of preventive maintenance inspections of A-10 baghouse. The preventive maintenance inspection reports shall be retained on site for a minimum of five years from the date of entry and be made available to District representatives upon request. (basis: BAAQMD regulation 8-301, BAAQMD Regulation 2-6-501)

7. The owner/operator of S-4 shall maintain weekly records of qualitative visible emissions data of A-10 baghouse using EPA Method 22 . The records of visible emissions data shall be retained on site for a minimum of five years from the date of entry and be made available to district representatives upon request. (basis: BAAQMD regulation 6-301, BAAQMD Regulation 2-6-501)

Condition ID # 14989, for S-5 Ladle Lancing

1. The owner/operator of S-5 shall maintain daily records of preventive maintenance inspections of A-12 baghouse in accordance with permit condition #2274.8. The preventive maintenance inspection reports shall be retained on site for a minimum of five years from the date of entry and be made available to District representatives upon request. (basis: BAAQMD regulation 6-301, BAAQMD Regulation 2-6-501)

2. The owner/operator of S-5 shall maintain weekly records of qualitative visible emissions data of A-12 baghouse using EPA Method 22 in accordance with permit condition #2274.9. The records of visible emissions data shall be retained on site for a minimum of five years from the date of entry and be made available to district representatives upon request. (basis: BAAQMD regulation 6-301, BAAQMD Regulation 2-6-501)

Condition ID # 2212, for S-8 Bell Blow Out

1. The owner/operator of S-8 shall maintain weekly records of qualitative visible emissions data of A-20 baghouse roof top emissions using EPA Method 22 or other related methods. The records of visible emission data shall be retained on site for a minimum of five years from the date of entry and be made available to District representatives upon request. (basis: BAAQMD regulation 6-301, BAAQMD Regulation 2-6-501)

Condition ID #14990, for S-15 Annealing Oven

1. The owner/operator of S-15 shall maintain monthly records of qualitative visible emission data of S-15 roof top emissions using EPA Method 22 . The records of

visible emissions data shall be retained on site for a minimum of five years from the data of entry and be made available to District representatives upon request. (basis: BAAQMD regulation 6-301, BAAQMD Regulation 2-6-501)

Condition ID #14991, for S-16 Pneumatic Cement Transport System and Plant

1. The owner/operator of S-16 shall maintain monthly records of qualitative visible emissions data of A9 baghouse using EPA Method 22 or other related method during cement delivery. The records of visible emissions data shall be retained on site for a minimum of five years from the date of entry and be made available to District representatives upon request. (basis: BAAQMD regulation 6-301, BAAQMD Regulation 2-6-501)

Condition ID #2676, for S-32 Pneumatic Dust Transport System

4. The Owner/operator of S-32 shall maintain the automatic shut down capabilities of Pneumatic Dust Transport System. (basis: BAAQMD regulation 6-301)

Associated Changes to Tables

A citation for each new condition paragraph will be added to the Source-Specific Applicable Requirements Table for each source.

Following is the detail of the changes to the Applicable Emission Limits & Compliance Monitoring Requirements tables:

Table VII-A
S-1 Cupola

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
SO2	BAAQMD 9-1-302	Y		sulfur emissions not to exceed 300 ppm, dry	BAAQMD condition #2274, part 7	P/E P/E	Fuel certification Source test when coke sulfur exceeds 0.75%
	BAAQMD Condition #2274, part 7	Y		Sulfur content of coke not to exceed 1.0%	BAAQMD condition #2274, part 7	P/E	Fuel certification
TSP	SIP 6-301	Y		Ringelmann No. 1	BAAQMD cond #2274, Parts 4 and 5	C	temperature monitor, pressure drop monitor
	SIP 6-301	Y		Ringelmann No. 1	BAAQMD Cond #2274, Part 8	P/D	preventative maintenance records
	SIP 6-301	Y		Ringelmann No. 1	BAAQMD Cond #2274, Part 8	P/W	Visible emission monitoring

Table VII-B
S-4 Ductile Treating

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
TSP	SIP 6-301	Y		Ringelmann No. 1	BAAQMD cond #1783, Parts 3	C	temperature monitor, pressure drop monitor
	SIP 6-301	Y		Ringelmann No. 1	BAAQMD Cond #1783, Part 6	P/W	preventative maintenance records
	SIP 6-301	Y		Ringelmann No. 1	BAAQMD Cond #1783, Part 7	P/W	Visible emission monitoring

Table VII-D
S-5, Ladle Lancing

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
TSP	SIP 6-301	Y		Ringelmann No. 1	BAAQMD cond #14989, Part 1	P/D	preventative maintenance records
	SIP 6-301	Y		Ringelmann No. 1	BAAQMD Cond #14989, Part 2	P/W	Visible emission monitoring

Table VII-A
S-8, Bell Blow Out

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
TSP	SIP 6-301	Y		Ringelmann No. 1	BAAQMD cond #2212, Parts 2	C	pressure drop monitor
	SIP 6-301	Y		Ringelmann No. 1	BAAQMD Cond #2212, Part 4	P/W	Visible emission monitoring

Table VII-E
S-15, Annealing Oven

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
TSP	SIP 6-301	Y		Ringelmann No. 1	BAAQMD cond #14990, Part 1	P/M	Visible emission monitoring

Table VII-D
S-16 Pneumatic Cement Transport System and Plant

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
TSP	SIP 6-301	Y		Ringelmann No. 1	BAAQMD cond #14991, Part 16	P/M	Visible emission monitoring

Table VII-G
S-32, Pneumatic Dust Transport System

Pollutant	Emission Limit Citation	FE Y/N	Future Effective Date	Emission Limit	Monitoring Requirement Citation	Monitoring Frequency (P/C/N)	Monitoring Type
TSP	SIP 6-301	Y		Ringelmann No. 1	BAAQMD cond #2676, Parts 4		

III. Other changes:

A. Table VII-F has a monitoring frequency of "W". This means that the frequency is weekly. The header to Section VII will be changed in this permit to include this definition.

B. Regulation 6 will be deleted as a Source-specific Applicable Requirement for the following sources because they are insignificant emission units (IEUs) for particulate:

S-6, Brick Saw
S-7, Mold Sandblast

A0575 ACME FIBERGLASS

I. The following corrections were requested by EPA

EPA's 6/6/97 letter, Typos and Minor Corrections:

Typo -- the date cited for SIP Regulation 6, "Particulate Matter and Visible Emissions" should be 9/2/81.

Table III of Acme's permit indicates an approval date of 5/3/84, since the District's copy of the BAAQMD SIP shows that the most recent amendment to §6-303.4 was approved by EPA on 5/3/84. Please notify us if our copy of the SIP is incorrect or outdated.

The District has noted that the dates for SIP Regulation 6 are not consistent in different sections of the permit and will correct these inconsistencies.

II. Periodic monitoring issues

EPA's 6/6/97 letter, Periodic Monitoring:

b) "Of the specific applicable requirements not identified in EPA's May 30 letter, four SIP rules account for the majority of the remaining applicable requirements for which periodic monitoring is not addressed: SIP rules 6-301 (opacity), 6-310 (TSP limits), 9-1-302 (SO2 emission limits), and rule 9-1-304 (fuel sulfur content limits)."

Spray Gun, S-3: §6-301 will be deleted from the list of specifically applicable requirements for this source, since it is an insignificant source of particulate emissions.

A0591 EAST BAY MUNICIPAL UTILITY DISTRICT

I. The following corrections were made

The throughput limit in Condition #7523 was incorrectly expressed in Table VII-E of the permit and will be corrected to 400,000 gal/yr, as stated in the condition.

II. Periodic monitoring issues

A. EPA's 5/30/97 letter, Opacity Monitoring:

"During periods that the following units are fired on oil or on other fuels that can result in visible emissions, periodic opacity monitoring should be included: Units S-37 through S-39"

The District pointed out in the 4/30/97 submittal that the potential to emit of each engine is 5.4 tpy of particulates on digester gas and 4.6 tpy on distillate oil and digester gas. The only liquid fuel burned at these engines is distillate, which is not a fuel targeted for visible emission monitoring under NSPS, Subpart Dc. Also, the units have not received a single notice of violation for excess visible emissions since their start-up in 1985. The District believes that these sources are insignificant emission units with respect to particulate emissions and does not believe periodic monitoring is necessary.

B. EPA's 6/6/97 letter, Periodic Monitoring:

b) "Of the specific applicable requirements not identified in EPA's May 30 letter, four SIP rules account for the majority of the remaining applicable requirements for which periodic monitoring is not addressed: SIP rules 6-301 (opacity), 6-310 (TSP limits), 9-1-302 (SO2 emission limits), and rule 9-1-304 (fuel sulfur content limits)."

Boilers, S-3 through S-6: Rule 6 requirements will be deleted from the list of specifically applicable requirements for these small boilers (each 9.96 MMBTU/hr max). EPA chose not to regulate particulate emissions from units of this size in the NSPS and the District also believes that these are insignificant emission units with respect to particulate emissions. Rule 9-1-302 applies only to the burning of digester gas at these boilers; the sulfur content in the digester gas itself does not exceed the 300 ppm exhaust gas limit, therefore the sources could not violate this standard, and no periodic monitoring is required. Rule 9-1-304 applies when the units are burning fuel oil. The facility has agreed to keep records of sulfur content. Conditions will be added to implement this requirement prior to permit issuance.

Engines, S-37 through S-39: Rule 6 requirements will be deleted from the list of specifically applicable requirements for these sources. These are insignificant emission units with respect to particulate emissions. For Rule 9-1-302 and Rule 9-1-304, see discussion above.

Boiler, S-182: Rule 6 requirements will be deleted from the list of specifically applicable requirements for this 3.5 MMBTU/hr boilers for the reasons discussed above. For Rule 9-1-304, see above.

C. EPA's 6/6/97 letter, Periodic Monitoring:

c) "... the following sources have applicable requirements for which there is no monitoring:

East Bay MUD - No monitoring for S-43 through S-47 for Regulation 8-2
No monitoring for S-48 for Regulation 8-7
No monitoring for S-110 through S-180 for Regulation 8-2
No monitoring for Condition 7293, part 1

Monitoring for Regulation 8-2 and Regulation 8-7 are addressed separately in this document.

Condition #7293, part 1 limits waste sludge throughput to 578,160,000 gallons per 12-month period. Part 1 also requires maintenance of material throughput records, and these records are the monitoring for the throughput limit.

A0733 CITY OF SUNNYVALE

I. The following corrections were requested by the plant

A. The correct address on the cover page is 1444 Borregas Avenue, not 1440 Borregas Avenue.

B. Sources 14 and 15, Engine Generators, which will operate after 6/15/97, are actually Caterpillar Model 3516, not Waukesha Model 5200GL. The Caterpillar engines were determined to be essentially equivalent by the permitting engineer.

II. Periodic monitoring issues

A. The letter dated 5/30/97 suggests opacity monitoring for sources 14 and 15, Engine-generators. These sources burn only gaseous fuels—natural gas, digester gas, and landfill gas. Opacity monitoring has not been required for any permit that we have reviewed for sources that burn only gaseous fuels. In fact, Region IX recently accepted a permit for Pacific Energy in Salinas, which burns a similar fuel, without opacity monitoring. Therefore, we do not believe that these sources require further opacity monitoring.

B. Your letter of June 6, 1997, inquires about POC monitoring for the City of Sunnyvale engines based on permit condition #10844, part 1. The PTE for this source using general factors is 2.5 tpy. At the 0.3 gr/bhp-hr limit, the emissions would be 0.33 tpy. In either case, the emissions are too low to require source tests.

Sewage Treatment monitoring for Regulation 8-2-301:

Enclosure #3 to this response is a report by Randy Frazier, the District's POTW expert on organic emissions from POTWs, concerning monitoring for the Regulation 8, Rule 2 standard for POTWs. To be in violation, a source must emit more than 15 lb POC/day and the emissions must be over 300 ppm total carbon. As the report shows, it would be very unlikely that a POTW source would exceed the 300 ppm total carbon. As you look at the concentration numbers, please note that methylene chloride, trichloroethylene and freons are not included in the standard.

Therefore, the District does not believe that monitoring for POC at POTWs is warranted.

III. Other issues

A. Your letter of June 6, 1997, inquires about whether Facility #A0733 is subject to the landfill NSPS requirements, since it burns landfill gas. This question hinges on whether the landfill supplying the gas is subject to the NSPS. The landfill in question is Facility #A2253, City of Sunnyvale Solid Waste Program. This facility is not subject to the NSPS. It will not be subject to the emission guidelines (EG) either because it is closed and has less than 2.5 million tons-in-place.

B. Your letter of June 6, 1997, asks why Condition 10844, part 2, contains a rolling twelve consecutive month electrical production limit. The answer is that these exempt engines are serving as a backup, and therefore their use is unpredictable. As requested, we will change the recordkeeping in part 3 to five years.

C. Regulations 6 and 9-1-302 will be deleted as Source-specific Applicable Requirements for the following sources because they are insignificant emission units (IEUs) for particulate and SO2:

S-12 Waste Gas Burner
S-13 Digester Waste Gas Flare
S-14 Engine Generator
S-15 Engine Generator

A1209 UNION SANITARY

I. Periodic monitoring issues

A. Your letter of 5/30/97 suggests opacity monitoring for source 15, Reciprocating Engine-Generator. This source burns only digester gas. Opacity monitoring has not been required for any permit that we have reviewed for sources that burn only gaseous fuels. In fact, Region IX recently accepted a permit for Pacific Energy in Salinas, which burns a similar fuel, without opacity monitoring. Therefore, we do not believe that this source requires further opacity monitoring.

B. Source 43, Hot Water Boiler:

Condition 9238 imposes concentration limits for NOX and CO on Source 43. However, the PTE these pollutants from this source does not warrant additional monitoring. Following are the PTEs for both natural gas and digester gas. The natural gas PTE is based on 8760 hr/yr, while the digester gas PTE is based on the 52,800 mmbtu/yr throughput limit.

Fuel	NOX, tpy	CO, tpy
Natural gas	3.3	0.6
Digester gas	5.3	1.7

C. Gas Station monitoring for Regulation 8-7-301.2:

The gas station at this facility is very small. In fact, the gas station has only one nozzle. The potential to emit at Union Sanitary District is 1050 lb POC/yr. This assumes that they pump gas 24 hours/day, 10 min/cycle, and 10 gal/cycle. Obviously, since a small gas station at a private facility only fuels the facility's fleet, these are absurd assumptions. The actual PTE, based on the vehicles owned by the facility, would be much smaller. In any case, the PTE for this gas station does not warrant additional monitoring.

D. Sewage Treatment monitoring for Regulation 8-2-301:

Enclosure #3 is a report by Randy Frazier, the District's POTW expert on organic emissions from POTWs, concerning monitoring for the 8-2 standard for POTWs. To be in violation, a source must emit more than 15 lb POC/day and the emissions must be over 300 ppm total carbon. As the report shows, it would be very unlikely that a POTW source would exceed the 300 ppm total carbon. As you look at the concentration numbers, please note that methylene chloride, trichloroethylene and freons are not included in the standard.

Therefore, the District does not believe that monitoring for POC at POTWs is warranted.

II. Other Issues

A. Regulations 6 and 9-1-302 will be deleted as Source-specific Applicable Requirements for the following sources because they are insignificant emission units (IEUs) for particulate and SO2:

S-4, Reciprocating Engine, Digester Gas Fired
S-14, Waste Gas Burner
S-42, Waste Gas Burner #3
S-15, Reciprocating Engine, Digester Gas Fired
S-40 Hot Water Sludge Heating Boiler, Stand-by Service
S-41 Hot Water Sludge Heating Boiler, Stand-by Service
S-43, Hot Water Boiler, Digester or Natural Gas Fired

B. Regulation 6 will be deleted as a Source-specific Applicable Requirement for the following sources because they are insignificant emission units (IEUs) for particulate:

S-28 Two Hot Water Boilers burning natural and digester gas
S-29, S-30, S-31 I.C. Engines

A1403 CITY OF SANTA ROSA

Periodic monitoring issues

A. Your letter of 5/30/97 suggests opacity monitoring for sources 29, 30, and 31, Internal Combustion Lean-Burn engines. These sources burn only gaseous fuels—natural gas and digester gas. Opacity monitoring has not been required for any permit that we have reviewed for sources that burn only gaseous fuels. In fact, Region IX recently accepted a permit for Pacific Energy in Salinas, which burns a similar fuel, without opacity monitoring. Therefore, we do not believe that these sources require further opacity monitoring.

B. Sewage Treatment monitoring for Regulation 8-2-301:

Attached is a report by Randy Frazier, the District's POTW expert on organic emissions from POTWs, concerning monitoring for the 8-2 standard for POTWs. To be in violation, a source must emit more than 15 lb POC/day and the emissions must be over 300 ppm total carbon. As the report shows, it would be very unlikely that a POTW source would exceed the 300 ppm total carbon. As you look at the concentration numbers, please note that methylene chloride, trichloroethylene and freons are not included in the standard.

Therefore, the District does not believe that monitoring for POC at POTWs is warranted.

A2300 FLEISCHMANN'S YEAST

I. The following corrections were requested by EPA

A. EPA's 6/6/97 letter, Typos and Minor Corrections:

1. Table VII-B, Steam Boiler S-2. The District stated in the Facility Evaluations write-up that the monitoring frequency for SO2 emission compliance has been added to Table VI-B for Steam Boiler S-2. However, this table has been renumbered as Table VII-B in the revision of the proposed permit, and there is no monitoring requirement in the table for SO2 emission compliance.

In the 4/30/97 submittal, the District did indicate that monitoring for compliance with the sulfur content limits in Condition #260, part 3 had been added to the permit, but did not indicate that SO2 monitoring provisions had been added to the permit. The District proposed that no periodic monitoring was necessary for SO2 limits.

B. EPA's 6/6/97 letter, Typos and Minor Corrections:

2. There is a typo in the test methods table -- a change made for condition #206, part 3 reads instead #260, part 3.

This is not an error; the correct identification number for the condition is #260.

II. The following error was noticed by the District and corrected

The District will include for source S-2, in Table II-A, the description "low NOx burners, flue gas recirculation" and will also correct the maximum capacity to 40 MMBTU/hr.

III. Periodic monitoring issues

A. EPA's 5/30/97 letter, Opacity Monitoring:

"Unit S-3. This unit has opacity limits as well as a PM limit of 0.01 gr/dscf. Because S-3 is controlled by a wet scrubber (Unit A-3), good monitoring and maintenance requirements for A-3 could potentially be substituted for opacity monitoring requirements on S-3."

The District proposed in its 4/30/97 letter that no periodic monitoring was necessary for the Regulation 6 requirements or the more stringent permit condition, due to the large margin of compliance between the measured emissions of 0.00215 gr/dscf (highest of 3 runs) and the applicable emission limits. The District also stated that the high efficiency of the scrubber, and therefore large margin of compliance, has been attributed to the behavior of the wet product (clumping).

Since proper operation of the scrubber assures compliance with the applicable emission limits and the existing permit condition #14319, part 2 currently requires proper operation and maintenance of A-3, as well as operation of A-3 at all times that S-3 is operated, the District maintains that no periodic monitoring is necessary.

B. EPA's 5/30/97 letter, Opacity Monitoring:

"During periods that the following units are fired on oil or on other fuels that can result in visible emissions, periodic opacity monitoring should be included: Units S-1 and S-2"

The District pointed out in the 4/30/97 letter that the potential to emit of S-1 is only 2.3 tpy of particulates. These emissions are based on federally enforceable restrictions - operation at the unit's maximum capacity of 37 MMBTU/hr, every hour of the year on fuel oil. However, the unit is also subject to a usage limit of 89,000 therms/yr, based on Regulation 9, Rule 7. When Regulation 9-7 becomes federally enforceable, which is likely to occur soon, the potential to emit drops to 0.06 tpy. Further, this unit is a back-up boiler.

The District also stated that the potential to emit for S-2 is 3.1 tpy of particulate emissions. This figure assumes operation at the unit's maximum capacity of 40 MMBTU/hr, every hour of the year, and also assumes that there is a natural gas curtailment for the entire year (allowing the unit to be run on fuel oil only). This is obviously an extreme scenario in that no curtailments at all have occurred in recent years, and, in fact, the facility does not even store fuel oil on site.

The District would also like to point out that boilers of this size fueled with distillate oil are subject to an opacity limit in the NSPS, but are not subject to any monitoring requirements. In Subpart Dc, EPA requires units burning residual oil to perform monitoring, but has specifically exempted distillate oil-fired boilers from visible emission monitoring of any type.

The District proposed no periodic monitoring for the visible emission requirements in its 4/30/97 letter, since the boilers are insignificant emission units with respect to particulate emissions. The District believes that, due to the negligible environmental impact of the potential emissions and low probability of violation, these units are prime examples of instances in which no periodic monitoring should be required, as discussed in White Paper #2, and maintains that no periodic monitoring is warranted.

C. EPA's 6/6/97 letter, Periodic Monitoring:

b) "Of the specific applicable requirements not identified in EPA's May 30 letter, four SIP rules account for the majority of the remaining applicable requirements for which periodic monitoring is not addressed: SIP rules 6-301 (opacity), 6-310 (TSP limits), 9-1-302 (SO2 emission limits), and rule 9-1-304 (fuel sulfur content limits)."

Boilers, S-1 and S-2: Rule 6 requirements will be deleted from the list of specifically applicable requirements, as these small boilers are insignificant emission units with respect to particulate emissions. The periodic monitoring issue has been discussed above. Rule 9-1-302 applies only to the burning of natural gas at these units; as there is no potential for violation of the 300 ppm SO2 limit while burning natural gas, no periodic monitoring is required. Rule 9-1-304 applies when the units are burning fuel oil; monitoring of sulfur content was addressed in the permit submitted on 4/30/97.

Yeast Dryer, S-3: Periodic monitoring, with respect to particulate emissions, has been addressed above. Rule 9-1 does not apply.

Yeast Fermenters, S-10 through S-15: Rule 6 requirements will be deleted from the list of specifically applicable requirements; these sources are insignificant emission units with respect to particulate emissions, as discussed in the District's 4/30/97 submittal. Rule 9-1 does not apply.

D. EPA's 6/6/97 letter, Periodic Monitoring:

c) "... the following sources have applicable requirements for which there is no monitoring:

Fleischmann's Yeast - No monitoring for S-2, Condition 260, parts 1 and 2"
No monitoring for S-3, Condition 14319, part 1

Condition #260, part 1, limits natural gas usage at S-2 to 700,000 standard cubic feet of natural gas per day. This condition was imposed in 1987 to limit NOx emissions from S-2 to less than the BACT trigger level of 150 lbs/day. The boiler has since been retrofitted with low NOx burners and flue gas recirculation. Evaluated at its maximum capacity on natural gas, using AP-42 controlled emission factors, the NOx emissions are 27 lbs/day. Since this source is no longer capable of emitting in excess of 150 lbs/day while burning natural gas, the District has decided to delete the limit on natural gas usage.

Condition #260, part 2, which limits fuel oil usage to periods of natural gas curtailment or testing periods. The District believes that the records from proposed Condition #260, part 4a, are adequate.

EPA noted the lack of monitoring for Condition #14319, part 1 in both the letter dated 5/30/97 and the letter dated 6/6/97. The District addressed this issue in the 4/30/97 submittal and has discussed this issue above.

A3523 UNIVERSAL FOODS

I. The following modification was requested by the facility

Red Star has objected to the standard condition in the permit which ensures that the 112(r) requirements are met. The objection is based on the fact that the facility may not be subject if EPA deletes hydrochloric acid solutions of less than 37% HCl (as proposed in the Federal Register), and also, they are actively investigating making changes to their operation so that they will not be subject. Red Star has requested and the District has agreed to change their condition to the following:

> Should this facility be subject to Part 68, Chemical Accident Prevention Provisions, then the permit holder shall submit a risk management plan (RMP) by the date specified in §68.10 and shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by Regulation 2, Rule 6.

II. The following was noticed by the District

While reviewing Condition #1993, the District has determined that part 3, limiting heat input to 6.3 mmbtu/hr, is unnecessary and will be deleted. The maximum rated capacity of each boiler is 6.3 mmbtu/hr.

III. Periodic monitoring issues

A. EPA's 6/6/97 letter, Periodic Monitoring:

b) "Of the specific applicable requirements not identified in EPA's May 30 letter, four SIP rules account for the majority of the remaining applicable requirements for which periodic monitoring is not addressed: SIP rules 6-301 (opacity), 6-310 (TSP limits), 9-1-302 (SO2 emission limits), and rule 9-1-304 (fuel sulfur content limits)."

Boilers, S-1 and S-2: Rule 6 requirements will be deleted from the list of specifically applicable requirements for these small boilers (each 6.3 mmbtu/hr max). EPA chose not to regulate particulate emissions from units of this size in the NSPS and the District also believes that these are insignificant emission units with respect to particulate emissions. Rule 9-1-302 applies only to the burning of natural gas at these units; as there is no potential for violation of the 300 ppm SO2 limit while burning natural gas, no periodic monitoring is required. Rule 9-1-304 applies when the units are burning fuel oil; monitoring of sulfur content is addressed below.

Yeast Fermenters, S-3 through S-7: Rule 6-301 and 6-310 will be deleted from the list of specifically applicable requirements; these sources are insignificant emission units with respect to particulate emissions, as discussed in the District's 4/30/97 submittal. Rule 9-1 does not apply.

B. EPA's 6/6/97 letter, Periodic Monitoring:

c) "... the following sources have applicable requirements for which there is no monitoring:

Red Star Yeast - No monitoring for S-1 or S-2 for Condition 1993, part 1"

Condition #1993, part 1, limits the sulfur content of the fuel oil used at S-1 and S-2 to 0.4% by weight. Also, Rule 9-1-304 limits sulfur content to 0.5% by weight. Red Star Yeast has stated that in the event of a natural gas curtailment, fuel oil #2 would be used in the boilers and has proposed to test and record the sulfur content of each load of fuel oil delivered. The District will add the specification of fuel oil #2 and the fuel testing requirement to Condition #1993. The new requirement will also be added to the Test Methods section of the permit.

Condition #1993 will be amended as follows:

Condition #1993; S-1, Boiler #1 and S-2, Boiler #2

1. The sulfur content in the fuel oil #2 used for firing in the boilers, S-1 and S-2, shall not exceed 0.4 percent, by weight. [basis: Cumulative Increase]

2. Fuel oil #2 shall be fired only in the event of gas curtailment or when the price of oil is lower than natural gas calculated as "dollars per million BTU" heat input. [basis: Cumulative Increase]

3. ~~The heat input to the boiler shall not exceed 6.3 million BTU per hour.~~ Every load of fuel oil #2 received on site shall be accompanied by a vendor certification of sulfur content or the fuel oil shall be tested for sulfur content using a District-approved test method. [basis: Cumulative Increase]

4. Daily record of all fuel oil #2 usage and vendor certification or lab analysis of sulfur content for each load of fuel oil #2 received shall be maintained on District approved log. The log shall be maintained for at least 5~~2~~ years and shall be made available to the District upon request. [basis: BAAQMD Regulation 2-6-501, MOP Volume II, Part 3, Section 4.7~~Cumulative Increase~~]

A7974 WESTERN FIBERGLASS

I. The following corrections were requested by EPA

EPA's 6/6/97 letter, Typos and Minor Corrections:

Typo -- the permit needs to include applicable requirement 8-50-301.3 in the emission limit table as stated in the response to comments.

The District intentionally did not include §8-50-301.3 in Table VII-B, since the section is an equipment specification, not an emission limit.

III. Periodic monitoring issues

EPA's 6/6/97 letter, Periodic Monitoring:

b) "Of the specific applicable requirements not identified in EPA's May 30 letter, four SIP rules account for the majority of the remaining applicable requirements for which periodic monitoring is not addressed: SIP rules 6-301 (opacity), 6-310 (TSP limits), 9-1-302 (SO2 emission limits), and rule 9-1-304 (fuel sulfur content limits)."

Chopper Guns and Spray Booth, S-1 through S-3: §6-301 will be deleted from the list of specifically applicable requirements for these sources, since they are insignificant sources of particulate emissions.

Enclosure # 2

BAAQMD Use of Discretion Afforded by

"White Paper #2 for Improved Implementation of The Part 70 Operating Permit Program

Section II. C. Treatment of Insignificant Emission Units"

BAAQMD Monitoring Policy: Insignificant Emissions of Visible and Particulate Emissions

The District has determined that emissions of particulates from various engines and boilers located at facilities #A0591, A0733, A1209, A1403 and A2300 are not of sufficient magnitude to warrant periodic monitoring for opacity or particulate emissions, regardless of the fuel burned. With the exception of the digester engines at East Bay M.U.D. (A0591) the actual particulate emissions from each of these sources is less than 0.2 tons per year, and worst case potential is only about 3 tons per year. At facility #A0591 the worst case particulate emissions from each engine is about 6 tons per year of particulates. Furthermore, the District has determined that its Regulation 6, Particulate Matter and Visible Emissions, is generally applicable, not specifically applicable, to particulate and visible emissions from the engines and boiler at these facilities.

In its comment letter of May 30, 1997, EPA Region IX states that "periodic monitoring should be included" for several engines and boilers located at facilities # A0591, A0733, A1209, A1403 and A2300 when fired on oil or other fuels that can result in visible emissions. In the letter dated June 6, 1997, Region IX further states that where monitoring is necessary to demonstrate compliance with Regulation 6-301 (opacity) the monitoring should consist of Method 9, Method 22 or periodic maintenance. These letters were sent following many hours of conversations between District and Region IX staff on the appropriateness of imposing a new program of periodic monitoring at these sources to determine compliance with Regulation 6.

The reasoning and justification for the District's determination that no periodic monitoring for visible and particulate emissions from these sources is stated very clearly by "White Paper Number 2 for Improved Implementation of the Part 70 Operating Permit Program." Considerable effort was expended in the development of White Paper 2. Representatives from California air agencies, industries and EPA's Region IX and OAQPS spent many days in negotiations over the period of a year in developing the ideas and final form of this policy document. More recently, during informal negotiations over these permits, District staff have explained to Region IX staff how we are implementing its policy options for insignificant emissions units (IEUs). We are therefore dismayed that Region IX's letters of May 30, 1997, and June 6, 1997, include no acknowledgment of the existence of the these policy options and how they might be implemented in practice.

BAAQMD Analysis of the Applicability of White Paper 2

1. White Paper Number 2 (II.C.1.) describes insignificant emissions units as those which are:

"... not directly regulated, and therefore could be left off the permit entirely, were it not for the presence of certain generic or facility-wide requirements that apply to all emission units."

The District directly regulates the emissions of NOx and CO from boilers through Regulation 9, Rule 7, and from internal combustion engines through Regulation 9, Rule 8. The District does not directly regulate particulate emissions from boilers or internal combustion engines. Particulate emissions from all sources in the District are generally covered by Regulation 6. For the most part, the District's general regulations pre-date regulations specifically developed for various categories. These rules and regulations were intended to limit emissions from large sources generally, until rulemaking could be enacted for specific source categories.

2. In footnote #21, White Paper Number 2 further states:

"An emissions unit can be an IEU for one applicable requirement and not for another.... such a unit may be eligible for treatment as an IEU only with respect to those pollutants not emitted in significant amounts. ...."

The District has determined that these sources do not emit significant amounts of particulates. The significance of the opacity limit for these sources is merely as an indicator of particulate emissions. Therefore we believe it is appropriate to designate these sources as IEU's for the applicability of Regulation 6.

3. In II.C.2.d., White Paper 2 offers the following guidance:

".... The EPA believes that the permitting authority in general has broad discretion in determining the nature of any required periodic monitoring. The need for this discretion is particularly evident in the case of generally applicable requirements, which tend to cover IEUs as well as significant emissions units. The requirement to include in a permit testing, monitoring, recordkeeping, reporting, and compliance certification sufficient to assure compliance does not require the permit to impose the same level of rigor with respect to all emission units and applicable requirement situations. It does not require extensive testing or monitoring to assure compliance with the applicable requirements for emissions units that do not have significant potential to violate emissions limitations or other requirements under normal operating conditions. <u>In particular, where the establishment of a regular program of monitoring would not significantly enhance the ability of the permit to assure compliance with the applicable requirement, the permitting authority can provide that the status quo (i.e., no monitoring) will meet § 70.6(a)(3)(i)</u> [emphasis added].
....

"The EPA's policy on IEU monitoring needs is based on its belief that IEU's typically are associated with inconsequential environmental impacts and present little potential for violations of generically applicable requirements.... As EPA noted in the first White Paper, generally applicable requirements typically reside in the SIP. Permitting authorities therefore not only have the best sense of which

requirements qualify as generally applicable, but also where it is appropriate to conclude that periodic monitoring is not necessary for IEU's subject to those requirements. ...."

The District has reviewed the compliance history of each of these sources as far back as when each was installed, or 1972 (whichever date is most recent). There have been no known violations of the District's opacity standard at any of these sources. These sources simply "do not have significant potential to violate emissions limitations or other requirements under normal operating conditions." Since there is no history of violation, we do not believe that the imposition of a program to monitor opacity at any of these sources would "significantly enhance the ability of the permit to assure compliance." We understand that Region IX staff feel that these programs would enhance the permit-holder's ability to assert compliance. We believe that the distinction between a program that increases compliance and one that merely increases knowledge about compliance is important. We also believe that Part 70, as interpreted in the White Papers, requires the former, not the latter.

It is our understanding that the periodic monitoring provisions of Title V of the federal Clean Air Act as amended in 1990 were included primarily as a way for EPA to accomplish "gap-filling" where the NSPS and NESHAPs failed to require adequate monitoring of sources subject to those regulations. White Paper 2 pointedly makes reference to the fact that generally applicable requirements typically reside in the SIP, as does Regulation 6, and further gives primary authority to the permitting agency in determining where "gap-filling" may or may not be appropriate. White Paper 2 asserts that "EPA believes that the permitting authority in general has broad discretion in determining the nature of any required periodic monitoring."

4. At II.C.2.e. White Paper 2 continues:

".... It follows that where, for instance, a permit does not require monitoring for IEU's subject to a generally applicable requirement, and there were no observed, documented, or known instances of non-compliance, an annual certification of compliance is presumptively appropriate. ...."

See above.

5. EPA identified the reason for the above guidance in White Paper 2 at II.C.3. as follows:

"Concerns have been expressed that addressing in part 70 permits the relatively trivial portion of emissions attributable to IEU's will consume a disproportionate share of the total resources available to issue part 70 permits. ....

"The EPA believes that the policy described for addressing generically applicable requirements ... as they apply to IEU's allows permitting authorities sufficient flexibility to streamline the required administrative effort commensurate to the environmental significance of the varying types of IEU situations. This should prevent the potentially high but unintended level of costs identified by certain

sources and permitting authorities from occurring in the future with respect to IEU's."

The District has proposed (and Region IX has tacitly accepted) that an annual source test for NOx and CO emissions is appropriate for the engines in question. Since this equipment generally emits over 50 tons per year of each of these pollutants, we agree monitoring is useful to assure compliance with NOx and CO limits. However, Region IX has suggested that operators spend significantly more time monitoring particulate and visible emissions, (the emissions of which are one to two orders of magnitude less than CO and NOx) than in monitoring the pollutants directly regulated at these sources. This demonstrates that the concerns of industry and permit agencies mentioned above in White Paper 2 were well founded. The fact that we are still arguing over this issue, and Region IX has actually threatened to deny the permits if they do not include all the monitoring provisions they suggested, is another example of the legitimacy of our earlier worry that "the relatively trivial portion of emissions attributable to IEU's [would] consume a disproportionate share of the total resources available to issue part 70 permits."

Enclosure # 3

BAAQMD Policy for Monitoring at Publicly Owned Treatment Works

Air emissions monitoring to demonstrate compliance with BAAQMD Regulation 8 Rule 2 emission limits of 15 lbs/day and 300 ppm total carbon (dry basis) for water-borne sources of VOC air contaminants from publicly Owned Treatment Plants (POTWs) is unnecessary due to low influent concentrations (and resulting low emission rates) and impractical due to the nature of the emission mechanisms. These observation are based on our experience with regulating and evaluating the air emissions from POTWs since 1988. This experience was gleaned in the process of working with the POTW industry in the San Francisco Bay Area via the Bay Area Air Toxics (BAAT) Group - a Bay Area consortium of POTWs interested in air emissions issues, the Pooled Emission Estimation Program (PEEP) Group, the California Association of Sanitary Agencies & League of California Cities & California Water Pollution Control Association (Tri Tac Group), the Joint Emissions Inventory Program (JEIP) Group as well as national organizations such as Association of Metropolitan Sewerage Agencies (AMSA).

Recently, the U.S. EPA concluded that it was not cost-effective to develop a NESHAP for the POTW water borne source category. This conclusion was arrived at based on issues of practicality and low air emissions. The same arguments are valid for the ongoing monitoring of VOC emissions to demonstrate compliance with the requirements of Regulation 8 Rule 2. All of the results from numerous studies indicate it is unnecessary and impractical to perform monitoring to ensure compliance with the 15 lb/day and 300 ppm total carbon emission limit of Regulation 8, Rule 2.

Low Air Emission Levels Due to Low Influent Concentrations

Since 1988 much actual air emissions data has been gathered from the water-borne processes at POTWs. The data has been evaluated from many different perspectives, has been used to develop computer process models, and has ultimately been used to determine what if any control technologies were appropriate. Typical of the results from the various studies are the results from the Pooled Emissions Estimation Program or PEEP Program.

The PEEP Program collected and analyzed 2060 air and 1220 liquid/sludge samples from 20 facilities throughout California. Liquid and sludge testing was performed with SW846 sampling protocol and EPA Method 624/625/EPA Region 9 for lab analysis of a spectrum of VOCs. Although the list of chemicals that could be present in POTW influent is unlimited, most chemicals are present in extremely low or non-detectable concentrations. According to the PEEP results of the 19 chemicals or classes of chemicals listed below, less than 10 are routinely detected.

Following is a table with a summary of volatile organic composition determined in the raw influent wastewater at five typical POTWs.

Compound	*Number of Analyses*	*Number of Positive Results*	*Range of Highest Conc (ppb)*	*Range of LOD[1] (ppb)*
Acrolein	11	0	-	5 - 100
Acrylonitrile	11	0	-	
Benzene	58	23	2 - 41	0.1 - 10
Carbon Tetrachloride	58	0	-	0.3 - 10
Chlorobenzene	58	0	-	0.5 - 10
Chloroform	58	44	10 - 59	1.6 - 5
p-Dichlorobenzene	25	17	7.4 - 64	3 - 12.5
Ethyl Chloride	58	1	40	0.5 - 25
Ethylene Dichloride	58	3	11 - 15	1 - 10
Methyl Bromide	58	0	-	2 - 25
Methyl Chloroform	58	29	9 - 220	0.5 - 10
Methylene Chloride	58	42	6 - 350	2.3 - 125
Perchloroethylene	56	31	9 - 72	0.5 - 10
Toluene	58	48	35 - 158	1.0 - 12.5
Trichloroethylene	54	9	1 - 6.3	0.5 - 10
Vinyl Chloride	56	0	-	1 - 25
Vinylidene Chloride	51	4	8.6 - 20	0.5 - 5
Xylenes	14	13	25 - 31	0.5 - 2.5
Freon 11	49	2	6.5	0 - 25
Freon 12	2	0	-	1.0
Freon 113	8	0	-	5 - 10

Based on the above worst-case influent concentrations, a total influent VOC concentration of 1082 ppb would translate in a daily emission rate of approximately 9 pounds from the entire treatment plant per million gallons of influent flow[2]. The majority of treatment plants have influent flow rates less than 10 million gallons per day with the VOCs either emitted over acres of liquid surface area and numerous liquid treatment processes and/or chemically digested in the treatment processes.

Impracticality of Monitoring Air Emissions from POTW Liquid Processes

POTW air streams are not normally vented and ducted. Typical liquid processes at POTWs cover large areas with huge volumes of air and are expected to be moist and somewhat corrosive in nature. According to the results of the JEIP study the average concentration of off-gas in the locations sampled (locations where the highest VOC rates were expected) was between 1 and 10 ppm. This is well below the 300 ppm total carbon basis specified by Regulation 8 Rule 2. The evaluations of air emissions in the above tests and studies indicate that it does not appear to be cost effective to cover, vent, and control or monitor the air streams. Without cover and ventilation systems and/or special equipment or procedures it is not possible to perform regular monitoring of air masses in and around POTWs.

Due to the extremely low concentrations of VOCs in the influent coupled with the fact that only a portion of the compounds are emitted throughout the largely open liquid processes we

[1]Range of detection limits depends upon sample size and analytical procedures used.
[2]Assumes 100% VOC emission into the air.

conclude that regular monitoring of VOCs to demonstrate compliance with BAAQMD Regulation 8 Rule 2 (15 lb/day and 300 ppm total carbon) is neither practical nor warranted.